

Title (en)

ELEVATOR TENSION MEMBER

Title (de)

ZUGGLIED FÜR EINEN AUFGANG

Title (fr)

ÉLÉMENT DE TENSION D'ASCENSEUR

Publication

EP 3141513 A1 20170315 (EN)

Application

EP 16187690 A 20160907

Priority

US 201562215390 P 20150908

Abstract (en)

A belt (16) for suspending and/or driving an elevator car includes a tension member (38) extending along a length of the belt (16), the tension member (38) including a plurality of fibers (24) bonded in a first polymer matrix (36), the plurality of fibers (24) extending parallel to and discontinuous along a length of the belt (16) and arranged with one or more lengthwise extending gaps (28) between lengthwise adjacent fibers (24). A jacket (40) substantially retains the tension member (38). A method of forming a tension member (38) for an elevator system belt (16) includes arranging a plurality of fibers (24) into a fiber bundle. The plurality of fibers (24) extend parallel to a length of the belt (16) and have one or more lengthwise extending gaps (28) between lengthwise extending fibers (24). The plurality of fibers (24) is bonded to a first polymer matrix (36).

IPC 8 full level

B66B 7/06 (2006.01); **B29B 15/12** (2006.01); **B29C 47/00** (2006.01); **B29C 47/02** (2006.01); **B29C 48/34** (2019.01); **B32B 38/18** (2006.01); **D07B 5/08** (2006.01); **D07B 7/14** (2006.01)

CPC (source: CN EP KR US)

B29C 70/12 (2013.01 - US); **B29C 70/16** (2013.01 - US); **B29C 70/30** (2013.01 - US); **B29C 70/304** (2021.05 - EP US); **B66B 7/00** (2013.01 - CN); **B66B 7/062** (2013.01 - EP KR US); **B66B 11/04** (2013.01 - CN); **D07B 5/08** (2013.01 - EP US); **D07B 7/145** (2013.01 - EP US); **B29D 29/00** (2013.01 - US); **B29K 2105/08** (2013.01 - US); **B29K 2105/12** (2013.01 - US); **B29K 2995/0077** (2013.01 - US); **D07B 1/22** (2013.01 - EP US); **D07B 2201/2002** (2013.01 - EP US); **D07B 2201/2007** (2013.01 - EP US); **D07B 2201/2033** (2013.01 - EP US); **D07B 2201/2046** (2013.01 - EP US); **D07B 2205/2007** (2013.01 - EP US); **D07B 2205/2039** (2013.01 - EP US); **D07B 2205/2046** (2013.01 - EP US); **D07B 2205/205** (2013.01 - EP US); **D07B 2205/3003** (2013.01 - EP US); **D07B 2205/3007** (2013.01 - EP US); **D07B 2501/2007** (2013.01 - EP KR US)

C-Set (source: EP US)

1. **D07B 2205/2007 + D07B 2801/16**
2. **D07B 2205/3007 + D07B 2801/10**
3. **D07B 2205/3003 + D07B 2801/10**
4. **D07B 2205/205 + D07B 2801/10**
5. **D07B 2205/2039 + D07B 2801/10**
6. **D07B 2205/2046 + D07B 2801/10**

Citation (search report)

- [I] US 2011259677 A1 20111027 - DUDDE FRANK P [US], et al
- [I] EP 2894119 A1 20150715 - KONE CORP [FI]
- [I] EP 1428927 A1 20040616 - INVENTIO AG [CH]
- [Y] US 8252411 B2 20120828 - VERONESI WILLIAM A [US], et al
- [Y] WO 2009090299 A1 20090723 - KONE CORP [FI], et al
- [X] US 4557680 A 19851210 - STANDLEY PAUL M [US]
- [X] US 6410126 B1 20020625 - GUEVEL JEAN [FR], et al
- [A] US 2014076669 A1 20140320 - WESSON JOHN P [US], et al

Cited by

WO2020128099A1; CN114127360A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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BA ME

DOCDB simple family (publication)

EP 3141513 A1 20170315; EP 3141513 B1 20221207; AU 2016225845 A1 20170323; AU 2016225845 B2 20180201;
CN 106744191 A 20170531; CN 106744191 B 20210803; KR 102685483 B1 20240717; KR 20170030065 A 20170316;
US 10676319 B2 20200609; US 11511968 B2 20221129; US 2017066630 A1 20170309; US 2020262681 A1 20200820

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